UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P O Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

33356 7590 04/02/2010

SoCAL IP LAW GROUP LLP
310 N. WESTLAKE BLVD. STE 120
WESTLAKE VILLAGE, CA 91362

EXAMINER	
TIV, BACHHEAN	
ART UNIT	PAPER NUMBER
2451	

DATE MAILED: 04/02/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,439	10/30/2003	Gerald Popek	U000-P03142US	3270

TITLE OF INVENTION: ACCELERATING NETWORK COMMUNICATIONS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$755	$0	$0	$755	07/02/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

33356 7590 04/02/2010

SoCAL IP LAW GROUP LLP
310 N. WESTLAKE BLVD. STE 120
WESTLAKE VILLAGE, CA 91362

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)

(Signature)

(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,439	10/30/2003	Gerald Popek	U000-P03142US	3270

TITLE OF INVENTION: ACCELERATING NETWORK COMMUNICATIONS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$755	$0	$0	$755	07/02/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
TIV, BACKHEAN	2451	709-242000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

☐ Issue Fee

☐ Publication Fee (No small entity discount permitted)

☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**

☐ A check is enclosed.

☐ Payment by credit card. Form PTO-2038 is attached.

☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,439	10/30/2003	Gerald Popek	U000-P03142US	3270

33356 7590 04/02/2010

SoCAL IP LAW GROUP LLP
310 N. WESTLAKE BLVD. STE 120
WESTLAKE VILLAGE, CA 91362

EXAMINER	
TIV, BACKHEAN	
ART UNIT	PAPER NUMBER
2451	

DATE MAILED: 04/02/2010

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 950 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 950 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	10/699,439	POPEK ET AL.	
	Examiner	Art Unit	
	BACKHEAN TIV	2451	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Remarks and Claims 11/4/09*.

2. ☒ The allowed claim(s) is/are *1,2, 4-11,13-16,18-24, 26-27, 29-35, 37-41, 43-49, 51-55,57,58*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

/John Follansbee/
Supervisory Patent Examiner, Art Unit 2451

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mark Goldstein on 3/12/10.

Please amend the claims as follows:

1. (Currently Amended) A method for increasing the throughput of network communications performed by a network access provider server, the method comprising:

the network access provider server establishing a connection with a client computer

the network access provider server receiving a request for a requested object from a requester, wherein the requester is a web browser on the client computer

the network access provider server forwarding the request to a server

the network access provider server receiving a response from the server

the network access provider server reviewing the response to determine whether the response includes a native expiration

when the response does not include the native expiration

the network access provider server computing a computed expiration for the response

the network access provider server inserting the computed expiration into the response creating an amended response

the network access provider server forwarding the amended response to the requester, wherein the amended response includes the requested object storing the amended response

the network access provider server providing the amended response to other requesters at other client computers that request the requested object, the providing achieved without additional communication with the server

the network access provider server evaluating whether the response includes a modification history

when the response includes the modification history,

the network access provider server computing a time-to-live for the response based on an age factor, a current time and a value of the modification history,

the network access provider server computing the computed expiration based on the current time and the time-to-live

when the response does not include the modification history, the network access provider server retrieving a modification query value from the request history data based on a response type and a response location

when the modification query value is retrieved,

the network access provider server computing the time-to-live for the response based on an age factor, a current time and the modification query value,

the network access provider server computing the computed expiration based on the current time and the time-to-live;

when the retrieving the modification query value is not successful, the network access provider server forwarding the response to the requester.

2. (Previously Presented) The method of claim 1 wherein the server comprises an origin server.

4. (Previously Presented) The method of claim 1 wherein when the response includes the native expiration, the network access provider server forwarding the response to the requester.

5. (Previously Presented) The method of claim 1 wherein the computed expiration is based on at least one of a response content type and a response resource identifier.

6. (Previously Presented) The method of claim 1 wherein the computed expiration is based on a time-to- live.

7. (Currently Amended) The method of claim 1 further comprising:

the network access provider server evaluating whether a content type of the response is appropriate;

the network access provider server performing the reviewing only when the content type of the response is appropriate.

8. (Previously Presented) The method of claim 7 wherein the network access provider server evaluating whether a content type of the response is appropriate comprises the network access provider server checking to determine whether the content type is in an appropriate type list.

9. (Previously Presented) The method of claim 8 wherein the appropriate type list comprises at least one of graphic, JavaScript, Cascading Style Sheet, portable document format (PDF), executable program, audio, video, and multimedia.

10. (Previously Presented) The method of claim 1 wherein the network access provider server receiving a request comprises the network access provider server storing request information as request history data.

11. (Previously Presented) The method of claim 10 wherein the request information includes a request resource identifier, a request content type, and a modification query when the modification query is present.

13. (Currently Amended) The method of claim ~~12~~10 further comprising:

when the time-to-live is greater than a defined maximum, the network access provider server setting the time-to-live to be the defined maximum;

when the time-to-live is less than a defined minimum, forwarding the response to the requester.

14. (Previously Presented) The method of claim 13 wherein the request is a hyper-text transfer protocol (HTTP) get, the modification query value is an HTTP if-modified-since value, and the modification history value is an HTTP last-modified value.

15. (Currently Amended) A method for increasing the throughput of network communications performed by a the network access provider server, the method comprising:

the network access provider server establishing a connection with a client computer

the network access provider server receiving a request for a requested object from a requester, wherein the requester is a web browser on the client computer

the network access provider server forwarding the request to a server

the network access provider server receiving a response from the server

the network access provider server evaluating whether the response has a status code that is actionable

when the status code is actionable,

the network access provider server reviewing the response to determine whether the response includes a native expiration

when the response does not include the native expiration

the network access provider server calculating a calculated expiration for the response

the network access provider server inserting the calculated expiration into the response creating an amended response

the network access provider server forwarding the amended response to the requester, wherein the amended response includes the requested object

the network access provider server storing the amended response

the network access provider server providing the amended response to other requesters on other client computers that request the requested object, the providing achieved without additional communication with the server

when the response includes the native expiration, the network access provider server forwarding the response to the requester

when the status code is not actionable, the network access provider server forwarding the response to the requester

the network access provider server evaluating whether the response includes a modification history

when the response includes the modification history,

the network access provider server computing a time-to-live for the response based on an age factor, a current time and a value of the modification history,

the network access provider server computing the computed expiration based on the current time and the time-to-live

when the response does not include the modification history, the network access provider server retrieving a modification query value from the request history data based on a response type and a response location

when the modification query value is retrieved,

the network access provider server computing the time-to-live for the response based on an age factor, a current time and the modification query value,

the network access provider server computing the computed expiration based on the current time and the time-to-live;

when the retrieving the modification query value is not successful, the network access provider server forwarding the response to the requester.

16. (Previously Presented) The method of claim 15 wherein the network access provider server evaluating whether the response has a status code that is actionable comprises the network access provider server checking to determine whether the response has a hyper-text transfer protocol (HTTP) status code of "OK" or "Not Modified".

17. (Cancelled)

18. (Currently Amended) A method for increasing the throughput of network communications performed by a network access provider server, the method comprising:

the network access provider server establishing a connection with a client computer

the network access provider server receiving a request for a requested object from a requester, wherein the requester is a web browser on the client computer

the network access provider server forwarding the request to a server

the network access provider server receiving a response from the server

the network access provider server reviewing the response to determine whether the response includes a native expiration

when the response does not include the native expiration

the network access provider server evaluating whether a content type of the response is appropriate

when the content type of the response is appropriate

the network access provider server computing a calculated expiration for the response

the network access provider server inserting the calculated expiration into the response creating an amended response

the network access provider server forwarding the amended response to the requester, wherein the amended response includes the requested object

the network access provider server storing the amended response

the network access provider server providing the amended response to other requesters on other client computers that request the requested object, the providing achieved without additional communication with the server when the content type of the response is not appropriate,

the network access provider server forwarding the response to the requester

when the response includes the native expiration, the network access provider server forwarding the response to the requester

the network access provider server evaluating whether the response includes a modification history

when the response includes the modification history,

the network access provider server computing a time-to-live for the response based on an age factor, a current time and a value of the modification history,

the network access provider server computing the computed expiration based on the current time and the time-to-live

when the response does not include the modification history, the network access provider server retrieving a modification query value from the request history data based on a response type and a response location

when the modification query value is retrieved,

the network access provider server computing the time-to-live for the response based on an age factor, a current time and the modification query value,

the network access provider server computing the computed expiration based on the current time and the time-to-live;

when the retrieving the modification query value is not successful, the network access provider server forwarding the response to the requester.

19. (Previously Presented) The method of claim 18 wherein the network access provider server evaluating whether a content type of the response is appropriate comprises the network access provider server checking to determine whether the content type is a graphic image.

20. (Previously Presented) The method of claim 19 wherein the network access

provider server evaluating whether a content type of the response is appropriate comprises the network access provider server checking to determine whether the content type is one of a Graphics Interchange Format (GIF) file or Joint Photographic Experts Group (JPEG) file.

21. (Previously Presented) The method of claim 18 wherein the network access provider server evaluating whether a content type of the response is appropriate comprises the network access provider server checking to determine whether the content type is in an appropriate type list.

22. (Previously Presented) The method of claim 21 wherein the appropriate type list comprises at least one of graphic, JavaScript, Cascading Style Sheet, portable document format (PDF), audio, video, and multimedia.

23. (Previously Presented) The method of claim 18 wherein the calculated expiration is based on at least one of a response content type and a response resource identifier.

24. (Previously Presented) The method of claim 18 wherein the calculated expiration is based on a time-to- live.

25. (Cancelled)

26. (Previously Presented) The method of claim 18 wherein the network access provider server receiving a request comprises the network access provider server storing request information as request history data.

27. (Previously Presented) The method of claim 26 wherein the request information includes a request resource identifier, a request content type, and a modification query when the modification query is present.

26.(Cancelled)

29. (Currently Amended) The method of claim ~~28~~ 26 further comprising:
when the time-to-live is greater than a defined maximum, the network access provider server setting the time-to-live to be the defined maximum; when the time-to-live is less than a defined minimum, the network access provider server forwarding the response to the requester.

30. (Previously Presented) The method of claim 28 wherein the request is a hyper-text transfer protocol (HTTP) get, the modification query value is an HTTP if-modified-since value, and the modification history value is an HTTP last-modified value.

31. (Currently Amended) A storage medium having instructions stored thereon which

when executed by a processor cause a network access provider server to perform operations comprising:

the network access provider server establishing a connection with a client computer

the network access provider server receiving a request for a requested object from a requester, wherein the requester is a web browser on the client computer

the network access provider server forwarding the request to a server

the network access provider server receiving a response from the server

the network access provider server reviewing the response to determine whether the response includes a native expiration

when the response does not include the native expiration

the network access provider server computing a computed expiration for the response

the network access provider server inserting the computed expiration into the response creating an amended response

the network access provider server forwarding the amended response to the requester, wherein the amended response includes the requested object

the network access provider server storing the amended response

the network access provider server providing the amended response to other requesters on other client computers that request the requested object, the providing achieved without additional communication with the server.

the network access provider server evaluating whether the response includes a modification history

when the response includes the modification history,

the network access provider server computing a time-to-live for the response based on an age factor, a current time and a value of the modification history,

the network access provider server computing the computed expiration based on the current time and the time-to-live

when the response does not include the modification history, the network access provider server retrieving a modification query value from the request history data based on a response type and a response location

when the modification query value is retrieved,

the network access provider server computing the time-to-live for the response based on an age factor, a current time and the modification query value,

the network access provider server computing the computed expiration based on the current time and the time-to-live;

when the retrieving the modification query value is not successful, the network access provider server forwarding the response to the requester.

32. (Previously Presented) The storage medium of claim 31 wherein the server comprises an origin server.

33. (Currently Amended) The storage medium of claim 31 having further instructions stored thereon which when executed by the processor cause the network access provider server to perform further operations comprising: the network access provider server evaluating whether a content type of the response is appropriate; the network access provider server performing the reviewing only when the content type of the response is appropriate.

34. (Previously Presented) The storage medium of claim 33 wherein the network access provider server evaluating whether a content type of the response is appropriate comprises the network access provider server checking to determine whether the content type is in an appropriate type list.

35. (Previously Presented) The storage medium of claim 34 wherein the appropriate type list comprises at least one of graphic, JavaScript, Cascading Style Sheet, portable document format (PDF), audio, video, and multimedia.

36. (Cancelled)

37. (Previously Presented) The storage medium of claim 31 wherein
when the response includes the native expiration, the network access provider server forwarding the response to the requester.

38. (Previously Presented) The storage medium of claim 31 wherein the computed expiration is based on at least one of a response content type and a response resource identifier.

39. (Previously Presented) The storage medium of claim 31 wherein the computed expiration is based on a time-to-live.

40. (Previously Presented) The storage medium of claim 31 wherein the network access provider server receiving a request comprises the network access provider server storing request information as request history data.

41. (Previously Presented) The storage medium of claim 40 wherein the request information includes a request resource identifier, a request content type, and a modification query when the modification query is present.

42. (Cancelled)

43. (Currently Amended) The storage medium of claim ~~42~~ 40 having further instructions stored thereon which when executed by the processor cause the network access provider server to perform operations further comprising: when the time-to-live is greater than a defined maximum, the network access provider server setting the time-to-live to be the defined maximum; when the time-to-live is less than a defined minimum, the network access provider server forwarding the response to the requester.

44. (Previously Presented) The storage medium of claim 43 wherein the request is a hyper-text transfer protocol (HTTP) get, the modification query value is an HTTP if-modified-since value, and the modification history value is an HTTP last-modified value.

45. (Currently Amended) A network access provider server configured to accelerate network traffic delivery, the network access provider server comprising:

a processor

a memory coupled with the processor

a storage medium having instructions stored thereon which when executed cause the network access provider server to perform actions comprising

the network access provider server establishing a connection with a client computer

receiving a request for a requested object from a requester, wherein the requester is a web browser on the client computer

forwarding the request to a server

receiving a response from the server

reviewing the response to determine whether the response includes a native expiration

when the response does not include the native expiration

computing a computed expiration for the response

inserting the computed expiration into the response creating an amended response

forwarding the amended response to the requester, wherein the amended response includes the requested object

storing the amended response

providing the amended response to other requesters on other client computers that request the requested object, the providing achieved without additional communication with the server

evaluating whether the response includes a modification history

when the response includes the modification history,

computing a time-to-live for the response based on an age factor, a current time and a value of the modification history,

computing the computed expiration based on the current time and the time-to-live

when the response does not include the modification history,

retrieving a modification query value from the request history data based on a response type and a response location

when the modification query value is retrieved,

computing the time-to-live for the response based on an age factor, a current time and the modification query value,

computing the computed expiration based on the current time and the time-to-live;

when the retrieving the modification query value is not successful, the network access provider server forwarding the response to the requester.

46. (Previously Presented) The network access provider server of claim 45 wherein the server comprises an origin server.

47. (Currently Amended) The network access provider server of claim 45 having further instructions which when executed cause the processor to perform further operations comprising: evaluating whether a content type of the response is appropriate; performing the reviewing only when the content type of the response is appropriate.

48. (Previously Presented) The network access provider server of claim 47 wherein the

evaluating whether a content type of the response is appropriate comprises checking to determine whether the content type is in an appropriate type list.

49. (Previously Presented) The network access provider server of claim 48 wherein the appropriate type list comprises at least one of graphic, JavaScript, Cascading Style Sheet, portable document format (PDF), audio, video, and multimedia.

50. (Cancelled)

51. (Previously Presented) The network access provider server of claim 45 wherein when the response includes the native expiration, forwarding the response to the requester.

52. (Previously Presented) The network access provider server of claim 45 wherein the computed expiration is based on at least one of a response content type and a response resource identifier.

53. (Previously Presented) The network access provider server of claim 45 wherein the computed expiration is based on a time-to-live.

54. (Previously Presented) The network access provider server of claim 45 wherein the receiving a request comprises storing request information as request history data.

55. (Previously Presented) The network access provider server of claim 54 wherein the request information includes a request resource identifier, a request content type, and a modification query when the modification query is present.

56. (Cancelled)

57. (Currently Amended) The network access provider server of claim ~~56~~ 54 wherein the storage medium has further instructions stored thereon which when executed cause the computing device to perform further operations comprising: when the time-to-live is greater than a defined maximum, setting the time-to-live to be the defined maximum; when the time-to-live is less than a defined minimum, forwarding the response to the requester.

58. (Previously Presented) The network access provider server of claim 57 wherein the request is a hyper-text transfer protocol (HTTP) get, the modification query value is an HTTP if- modified-since value, and the modification history value is an HTTP last modified value.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

The prior art does not explicitly teach,

A method for increasing the throughput of network communications performed by a network access provider server, the method comprising:

the network access provider server establishing a connection with a client computer

the network access provider server receiving a request for a requested object from a requester, wherein the requester is a web browser on the client computer

the network access provider server forwarding the request to a server

the network access provider server receiving a response from the server

the network access provider server reviewing the response to determine whether the response includes a native expiration

when the response does not include the native expiration

the network access provider server computing a computed expiration for the response

the network access provider server inserting the computed expiration into the response creating an amended response

the network access provider server forwarding the amended response to the requester, wherein the amended response includes the requested object storing the amended response

the network access provider server providing the amended response to other requesters at other client computers that request the requested object, the providing achieved without additional communication with the server

the network access provider server evaluating whether the response includes a modification history

when the response includes the modification history,

the network access provider server computing a time-to-live for the response based on an age factor, a current time and a value of the modification history,

the network access provider server computing the computed expiration based on the current time and the time-to-live

when the response does not include the modification history, the network access provider server retrieving a modification query value from the request history data based on a response type and a response location

when the modification query value is retrieved,

the network access provider server computing the time-to-live for the response based on an age factor, a current time and the modification query value,

the network access provider server computing the computed expiration based on the current time and the time-to-live;

when the retrieving the modification query value is not successful, the network access provider server forwarding the response to the requester.

In particular, the network access provider, as defined in the specification, para.0011, an ISP to perform the totality of the claimed limitations, of determination of a native expiration, computing the native expiration to create an amended response, in which the response is also evaluated to determine whether there is a history of modification and

computing TTL based on age factor, current time, and value of the modification history, and when there is not a modification history, retrieving a modification query value form request history data based on a response type and response location and then computing TTL based on age factor, current time and modification query value,

See also Remarks filed on 07/09/09 and 11/04/09.

NOTE: The storage medium of independent claim 31 and all dependent claims is deemed to be statutory, based upon the applicant's specification para. 0018, 0038, e.g. storage media such as hard disk, floppy disk, CD, DVD, harddrive.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

/John Follansbee/

Supervisory Patent Examiner, Art Unit 2451